

EAST GOSHEN MUNICIPAL AUTHORITY

June 9, 2014

Monday 7:00 PM

1. CALL TO ORDER/PLEDGE OF ALLEGIANCE/MOMENT OF SILENCE
 - a. Ask if anyone will be taping the meeting?
2. CHAIRMAN'S REPORT/OTHER MEMBERS REPORTS
3. SEWER REPORTS
 - a. Director of Public Works Report
 - b. Pennoni Engineer's Report
 - c. Big Fish Environmental Inc. Report with DMR's
 - d. East Goshen Township Flows for May 2014
3. APPROVAL OF MINUTES
 - a. May 21, 2014
4. APPROVAL OF INVOICES

a.	Pennoni	Invoice #591749	\$ 619.75
b.	Pennoni	Invoice #591750	\$5,761.25
c.	Pennoni	Invoice #591751	\$1,766.75
d.	Gawthrop	Invoice #119419	\$1,300.00
5. LIAISON REPORTS
6. FINANCIAL REPORTS
 - a. May 2014 Report
7. OLD BUSINESS
 - a.
8. GOALS
 - a. Review current mission statement and provide the Board of Supervisors with changes, if needed – June 1, 2014 **May 8 – The MA does not have a current mission statement. A first draft is included in the packet. June 9 – Changed “lease” to “leasee”**
 - b. Submit an article for each newsletter – Due date for newsletter
Need by 1/31/14 – Dana **Completed**
Need by 4/30/14 – Jack **Completed**
Need by 7/1/14 - Kevin
Need by 10/31/14

- c. Obtain PA DEP approval for the Act 537 Plan revision for the Reservoir Road Pump Station – December 31, 2014 **May 8 - Revisions submitted to EGMA, EGPC, WGSTP, WGPC, CCHD, and CCPC**
- d. Develop a recommendation on covers for the SBRs – August 1, 2014 **May 8 – Draft memo distributed. June 9 – Final memo in packet**
- e. Attend West Goshen Meetings quarterly – more often if needed.
 - 1st Quarter (March) – **Jack- Completed**
 - 2nd Quarter (June) – **Ed- Completed**
 - 3rd Quarter (September)
 - 4th Quarter (December)
- f. Respond to capacity requests in 45 days or less.
211 Ellis Lane – 1 EDU existing house, 195 Wyllpen Place – 1 EDU existing house
- g. Continue to implement I & I Plan **April 14 – Status Report received**
- h. Operate RCSTP in compliance with NPDES Permit
January, February, March, May
- 9. NEW BUSINESS
 - a. Authorize Chairman to execute sewer connection agreement for 195 Wyllpen Place
- 10. CAPACITY REQUESTS
 - a. None
- 11. ANY OTHER MATTER
- 12. CORRESPONDENCE AND REPORTS OF INTEREST
 - a. Fairway Village rehabilitating the sanitary sewer manhole
- 13. PUBLIC COMMENT
- 14. ADJOURNMENT

EAST GOSHEN MUNICIPAL AUTHORITY
EAST GOSHEN TOWNSHIP
1580 PAOLI PIKE, WEST CHESTER, PA 19380-6199

June 4, 2014

To: Municipal Authority

From: Mark Miller

Re: May 2014 Monthly Report

Meters: All meters were read on a daily basis. The two portable meters have not arrived yet; as they come in we will get them installed. The new meters have the capabilities of sending out the reading thru the internet. I have asked Allied to give me a cost to modify our meters to allow us to get the readings over the internet for the 2015 budget.

C.C. Collection: The pump station wet wells were cleaned last week. The wet well at Barkway pump station had several leaks; we packed the leaks and pumped 60 gallons of grout into them to seal the leaks. The pumps are scheduled to be pulled for routine maintenance next week. We repaired a broken lateral on Red Maple Lane; last Monday the lateral line sheared off which was allowing heavy inflow into the system.

R.C. Collection: The Hunt Country pump station was visited on a routine basis with no problems to report. The wet well was cleaned last week.

R.C. Plant: The wet well was cleaned last week, we are scheduled to re-install the lift station pump next week and pull another for routine maintenance.

Alarms: We responded to 21 alarms for the month of May.

PA One Calls: We received 116 PA One calls in May.



MEMORANDUM

TO: East Goshen Municipal Authority Board
Rick Smith, Township Manager

FROM: Michael Ellis, P.E.
Authority Engineer

DATE: June 5, 2014

SUBJECT: Engineer's Report

Invoices

- Invoices with summaries are provided under separate cover.

Ridley Creek Sewage Treatment Plant (RCSTP)

- Pennoni continues to provide operations assistance as needed. No operational issues were brought to our attention in May.

Reserve Pump Station Elimination

- There are three outstanding punchlist items at the time of this report: removal of the filter sock along the creek, re-seeding/re-topsoiling the lawn area at the old pump station driveway and building, and resubmission of as-built plans with surveyed manhole elevations. The contractor has informed us that they have visited the site to evaluate the work to be performed, and they are hopeful to complete the work by June 13.

Reservoir Road Pump Station Act 537 Plan

- We are awaiting Act 537 Plan review forms to be completed and returned from the East Goshen Township Planning Commission, West Goshen Township Planning Commission, Chester County Planning Commission, Chester County Health Department, and West Goshen Sewage Treatment Plant operator. Reviews are due by July 9, 2014.
- Based upon the revised force main routing and additional information that we submitted, the PA Department of Conservation and Natural Resources (DCNR) retracted their requirement for a field botanical survey of potential threats to certain plant species.
- We are awaiting feedback from the U.S. Fish & Wildlife Service on the Phase 1 bog turtle habitat survey report that was submitted by Conestoga-Rovers & Associates in late April.

- Tentative Act 537 Planning schedule (assuming no Phase 2 bog turtle screening):

	<u>Estimated Date</u>
○ USFWS Bog Turtle Habitat Coordination	June 30, 2014
○ County and Township Agency Review Comments Due	July 9, 2014
○ Revisions per Agency Comments	July 14, 2014
○ 30-Day Public Comment Period	August 15, 2014
○ East Goshen Township Adoption	August 19, 2014
○ PADEP Review and Approval (120 days).....	December 21, 2014

New Sewer Connections

- We completed a review of the design plan and report submission for a new private wastewater pump station for Acero Precision at 1340 Enterprise Drive, issued a comment letter, and discussed comments with the design consultant.

Fairway Village Manhole Lining

- Abel Recon will perform the demonstration of the SprayWall monolithic polyurethane interior manhole lining system on June 10, 2014. The demonstration will begin at 11:00 a.m. at the site.

RCSTP Tank Covers

- We completed the evaluation of tank cover alternatives and forwarded an updated summary memo to the Township.



Monthly Operations Report: May 2014

Treatment Process Operation

During April 2014, there was one exceedance of the final effluent discharge limitations for outfall 001 and no discharge from Outfall 002. The exceedance reported was a total phosphorus monthly average concentration of 0.54 mg/L as compared to the permitted limitation of 0.50 mg/L. Table 1 illustrates the final effluent composite sample data reported for the April 2014 eDMR.

Table 1

April 2014 - Final Effluent - Out Fall 001											
NPDES Permit Discharge Limitations	Flow	CBOD ₅		TSS		NH ₄ -N		Phosphorus, Total , mg/L		Fecal Coliform	
	MGD Average	mg/L	lbs/ month	mg/L	lbs/ month	mg/L	lbs/ month	mg/L	lbs/ month	Geo Mean	Geo Mean
	0.75	20	125	21	131	7	44	0.5	3	200	1,000
	Instantaneous Maximum	40		42							
Sample Date											
April 1, 2014	0.512	4.2	17.9	8	34	1.39	5.94	0.49	2.09	1	0.0000
April 8, 2014	0.508	4.9	20.8	10	42	0.12	0.53	0.68	2.88	1	0.0000
April 15, 2014	0.692	3.5	20.20	8	46	0.25	1.45	0.50	2.89	1	0.0000
April 22, 2014	0.458	4.3	16.42	7	27	0.55	2.10	0.48	1.83	1	0.0000
April 24, 2014	0.409	NS	NS	NS	NS	NS	NS	0.39	1.33	NS	NS
April 25, 2014	0.406	NS	NS	NS	NS	NS	NS	0.61	2.07	NS	NS
April 27, 2014	0.469	NS	NS	NS	NS	NS	NS	0.51	2.0	NS	NS
April 29, 2014	0.549	NS	NS	NS	NS	NS	NS	0.66	3.0	NS	NS
Average	0.500	4.2	18.8	8	37	0.579	2.50	0.54	2.15	1	0.0000
Minimum	0.406	3.5	16.4	7	27	0.124	0.53	0.39	1.33	1	0.0000
Maximum	0.692	4.9	20.8	10	46	1.390	5.94	0.68	2.89	1	0.0000

The monthly average total phosphorus concentration was 0.54 mg/L as compared to the discharge limitation of 0.5 mg/L. During the month, the final effluent total phosphorus concentration discharged ranged from 0.39 mg/L to 0.68 mg/L with an average of 54.3 gallons per day of aluminum sulfate solution.



There was no discharge to Applebrook, Outfall 002, during April 2014.

Table 2 illustrates the influent wastewater pollutant loadings for April 2014. The influent loadings remained within the treatment facility design loadings.

Table 2

April 2014 - Influent Wastewater											
Design Basis	Flow	BOD ₅		TSS		NH ₄ -N		TKN, mg/L		Phosphorus, Total, mg/L	
		mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day
	MGD Average	335	2,098	320	2,001	32	200	48	301	9.1	57
Sample Date											
April 1, 2014	0.464	160	619	136	526	25.9	100	36.1	140	4.8	19
April 8, 2014	0.562	177	685	224	867	25.3	98	39.6	153	4.0	15
April 15, 2014	0.446	124	480	44	170	22.4	87	35.7	138	4.3	17
April 22, 2014	0.592	184	712	132	511	24.4	94	39.0	151	4.5	17
April 29, 2014	0.558	216	836	228	882	35.2	136	47.1	182	5.7	22
Average	0.524	172	666	153	591	26.6	95	39.5	153	4.4	17
Minimum	0.446	124	480	44	170	22.4	87	35.7	138	4.0	15
Maximum	0.592	216	836	228	882	35.2	100	47.1	182	4.8	19

During the month of April 2014, the total phosphorus concentrations at the final effluent outfall 001 were slightly elevated at or above the permitted discharge limitation of 0.5 mg/L. Aluminum sulfate feed rates were increased as the month progressed to assist with total phosphorus removal. Periodically, the influent flow rate and volume to the SBRs resulted in "Filled Decants." The Filled Decant condition results in diverting a mixture of influent wastewater and treated effluent directly to the post flow equalization basins, disc filters and disinfection prior to discharge through outfall 001.



Table 3 presents the final effluent data for the month of May 2014. There are no anticipated exceedances of the permitted limitations for the month of May.

Table 3

May 2014 - Final Effluent - Out Fall 001											
NPDES Permit Discharge Limitations	Flow	CBOD ₅		TSS		NH ₄ -N		Phosphorus, Total , mg/L		Fecal Coliform	
	MGD Average	mg/L	lbs/ month	mg/L	lbs/ month	mg/L	lbs/ month	mg/L	lbs/ month	Geo Mean	Geo Mean
	0.75	20	125	21	131	7	44	0.5	3	200	1,000
	Instantaneous Maximum	40		42							
Sample Date											
May 6, 2014	0.475	5.2	20.6	6	24	1.23	4.87	0.32	1.27	2	0.3010
May 13, 2014	0.480	3.7	14.8	6	24	1.89	7.57	0.20	0.80	1	0.0000
May 20, 2014	0.353	3.2	9.42	7	21	2.50	7.36	0.27	0.79	3	0.4771
May 27, 2014	0.430							0.23	0.82		
Average	0.435	4.0	14.9	6	23	1.873	6.60	0.26	0.92	2	0.2594
Minimum	0.353	3.2	9.4	6	21	1.230	4.87	0.20	0.79	1	0.0000
Maximum	0.480	5.2	20.6	7	24	2.500	7.57	0.32	1.27	3	0.4771

During May 2014, there was no discharge to Applebrook.

The influent wastewater pollutant concentrations and loading entering the wastewater treatment facility remained within the design concentrations and loadings. Composite samples are collected at the influent doghouse manhole and influent wet well. The influent flow meter reading is collected from the influent flow meter located prior to the Screening Building, excluding the internal recycle flows.

Table 4 presents the available pollutant data for the influent wastewater collected at the doghouse manhole.



Table 4

May 2014 - Influent Wastewater											
Design Basis	Flow	BOD ₅		TSS		NH ₄ -N		TKN, mg/L		Phosphorus, Total, mg/L	
		mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day
	MGD Average	335	2,098	320	2,001	32	200	48	301	9.1	57
Sample Date											
May 6, 2014	0.469	67.9	266	148	579	23.0	90	33.5	131	3.7	14
May 13, 2014	0.436	280	1,096	168	657	29.9	117	38.2	149	4.0	16
May 20, 2014	0.309	212	830	202	791	29.0	113	37.4	146	5.3	21
May 27, 2014	0.426										
Average	0.410	187	730	173	676	27.3	107	36.4	142	4.3	17
Minimum	0.309	68	266	148	579	23.0	90	33.5	131	3.7	14
Maximum	0.469	280	1096	202	791	29.9	117	38.2	149	5.3	21

Sequencing batch reactors (SBRs) numbered 1, 3 and 4 were in service during the month of May.

Process monitoring of each SBR included ammonia as N, nitrite as N, Nitrate as N, COD, SSV, MLSS and total phosphorus. Foam concentrations remain reduced during the month of April. Increased sludge wasting was continued to maintain lower the MLSS concentrations. SBRs numbered 3 and 4 were observed to have a maximum of 5% to 10% of the surface area covered with a medium brown colored foam. Adjustments to the treatment process to lower the MLSS concentrations and raise the F:M ratio within the target range of 0.045 to 0.06 were ongoing during the month. Process adjustments to manage the foam included adjustments for achieving the lower ammonia as nitrogen discharge concentration of 2.5 mg/L as compared to the 7.0 mg/L during April.

Daily monitoring of the influent and final effluent 24-hour composites samples for total phosphorus is ongoing. Daily analysis of the final effluent flow equalization grab sample is total phosphorus is ongoing. Sample collection and analysis of the influent wastewater collected at the influent pump station wet well is ongoing.



Addition of aluminum sulfate solution to the SBRs to assist with phosphorus removal continued. The volume of aluminum sulfate solution to the SBRs was increased from a daily average of 54.3 gpd during April to 82.6 gpd during May to assist with total phosphorus removal. Increased aluminum sulfate dosages prior to filtration were increased during the month. The increase in alum addition resulted in an increase in soda ash addition. During May the daily average soda ash addition was 439 lbs/day as compared to the April daily average of 308 lbs/day. The increase in soda ash was to assist towards maintaining pH concentrations above 7.0 standard units continued during the month.

SBR No. 2 remains out of service as a treatment unit, however, partially filled with MLSS which continuously mixed and aerated. The majority of the contents were transferred to the sludge holding tanks. This SBR was periodically placed in service to assist with managing peak flows to reduce the impact of Filled Decant conditions.

The decanter for SBR 3 was occasionally observed as being slightly tilted within the water level. The effluent knife valve was routinely closed and the decanter filled with water to assist with lowering the decanter within the water level. The frequency of occurrence varied during the month. The SBR is planned for removal from service during late June for inspection.

Flow data:

May 2014			
Flow Meter Location	Total Volume for Month, MGD	Average Daily Flow, gpd	Daily Maximum Flow, gpd
Influent Wastewater to Screening Building	15.147	488,607	764,220
Influent Wastewater to SBRs	16.954	546,908	873,032
Internal Recycle	1.848	59,616	136,420
Treated Effluent to Disc Filters	16.547	533,761	913,056
Final Effluent Discharge	15.185	489,839	837,000
Applebrook Golf Course	0	0	0



Chemical Usage:

May 2014		
Chemical	Daily Average	Total Monthly
Soda Ash	439	13,600
Magnesium Hydroxide	0	0
Aluminum Sulfate solution	82.6	2,561
Polymer (centrifuge)	0.86*	14 gallons

**Fifteen (15) days of centrifuge operation*

Solids Dewatering and Disposal: May 2014

Sludge Dewatering Summary	
Gallons of sludge dewatered	223,310 gallons
Average Dewatered Total Solids, %	19.7%
Wet Tons	33.7
Dry Tons	6.593
Number of dumpsters	4

**A total of four (4) dumpsters were filled and three (3) dumpsters were removed during May.*

During the month, sludge wasting to the sludge holding tanks and decanting of the sludge holding tanks was ongoing. Process monitoring included pH, total alkalinity and total solids.

Sludge holding tank No. 1 was in service. The level at the beginning of the month was 7.44 feet and the level at the end of the month was 11.72 feet. The initial total solids concentration was 0.62% and ended the month as 0.73% total solids. The average pH concentration was 7.30 S.U. and total alkalinity of 386 mg/L. No supernatant was decanted during the month. A total of 1,000 pounds of soda ash were added during the month for pH adjustment.

Sludge holding tank No. 2 was in service. The level at the beginning of the month was 14.39 feet and the level at the end of the month was 13.99 feet. The initial total solids concentration were 0.97% and ended the month as 0.80% total solids. The average pH concentration was 7.38 S.U. and total alkalinity of 490 mg/L. 83,626 gallons of supernatant were decanted during the month. A total of 100 pounds of soda ash were added during the month for pH adjustment.

Significant Storm/Hydraulic Loading Events

None were experienced past May 2, 2014.



Minor Repairs and Preventative Maintenance

- Replaced the inlet air filters for blowers B1A, B1B, B1C and B2.
- Replaced the suction and pump tubing for the influent samplers and final effluent sampler.
 - The final effluent suction tubing is replaced monthly.
- Replaced the pump hose on alum feed pump.
- Cleaned and calibrated SBR LDO probes.

2013 FLOWMETERS

2014 MAY 2ND QUARTER METERS FROM WEST GOSHEN - CC COLLECTION													
Precip	DATE	WESTTOWN WAY READING	1000 GPD	ELLIS LANE READING	10 GPD	PAOLI PIKE READING	10 GPD	WILSON DRIVE READING	10 GPD	SUMMIT GPD	NET FLOWS		
0.1	05/01/14	1,663,200	2,627,000	4,860,107	285,370	2,951,705	189,230	1,376,738	132,960	24,000	2,019,440		
0	05/02/14												
0.05	05/03/14												
0	05/04/14												
0	05/05/14	1,639,690	1,622,500	4,941,499	203,480	2,991,029	98,310	1,422,664	114,815	24,000	1,205,895		
0	05/06/14												
0	05/07/14	1,672,404	1,357,000	4,973,060	157,805	3,007,028	79,995	1,446,087	117,115	24,000	1,002,085		
0.03	05/08/14												
0	05/09/14	1,675,931	1,763,500	5,003,129	150,345	3,022,741	78,565	1,474,051	139,820	24,000	1,394,770		
0.35	05/10/14												
0	05/11/14												
0	05/12/14	1,679,636	1,235,000	5,046,624	144,983	3,045,310	75,230	1,492,141	60,300	24,000	954,487		
0.3	05/13/14	1,680,885	1,249,000	5,060,854	142,300	3,053,606	82,960	1,500,391	82,500	24,000	941,240		
0	05/14/14	1,682,164	1,279,000	5,075,264	144,100	3,061,876	82,700	1,507,792	74,010	24,000	978,190		
0.35	05/15/14	1,683,450	1,286,000	5,088,982	137,180	3,069,301	74,250	1,519,386	115,940	24,000	958,630		
0	05/16/14												
0	05/17/14												
0.3	05/18/14												
0	05/19/14	1,689,241	1,447,750	5,160,633	179,128	3,117,949	121,620	1,545,477	65,228	24,000	1,081,775		
0	05/20/14												
1.85	05/21/14	1,691,783	1,271,000	5,190,478	149,225	3,132,731	73,910	1,557,379	59,510	24,000	988,355		
0	05/22/14	1,694,636	2,853,000	5,224,892	344,140	3,150,005	172,740	1,572,594	152,150	24,000	2,183,970		
0	05/23/14												
0	05/24/14												
0.03	05/25/14												
0.05	05/26/14												
0.25	05/27/14												
0.15	05/28/14	1,700,777	1,023,500	5,299,335	124,072	3,186,335	60,550	1,599,276	44,470	24,000	794,408		
0.5	05/29/14	1,702,090	1,313,000	5,314,051	147,160	3,194,008	76,730	1,607,026	77,500	24,000	1,011,610		
0	05/30/14	1,703,353	1,263,000	5,328,279	142,280	3,201,402	73,940	1,615,695	86,690	24,000	960,090		
0.00	05/31/14												
4.56	Day Avg		1,542,161		175,112		95,766		94,501	24,000	823,747		
	Day Tot		21,590,250		2,451,568		1,340,730		1,323,008	336,000	#####		
	Day Count		14		14		14		14	14	#####		

EG TWP

MONTH TO DATE
 NORMAL MONTH TO DATE
 YEAR TO DATE
 NORMAL YEAR TO DATE (DL)

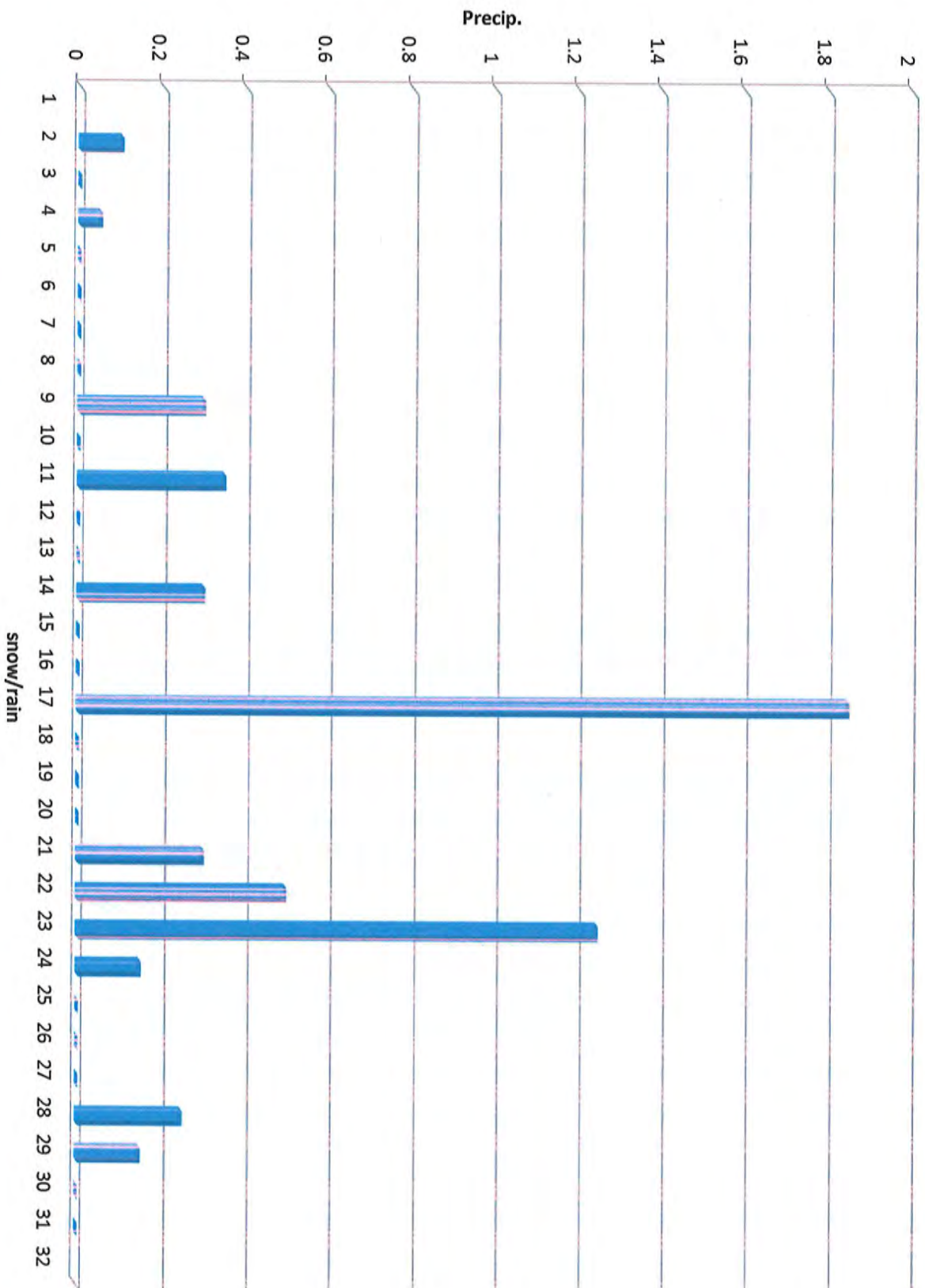
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2014 SUMMARY OF METER READINGS

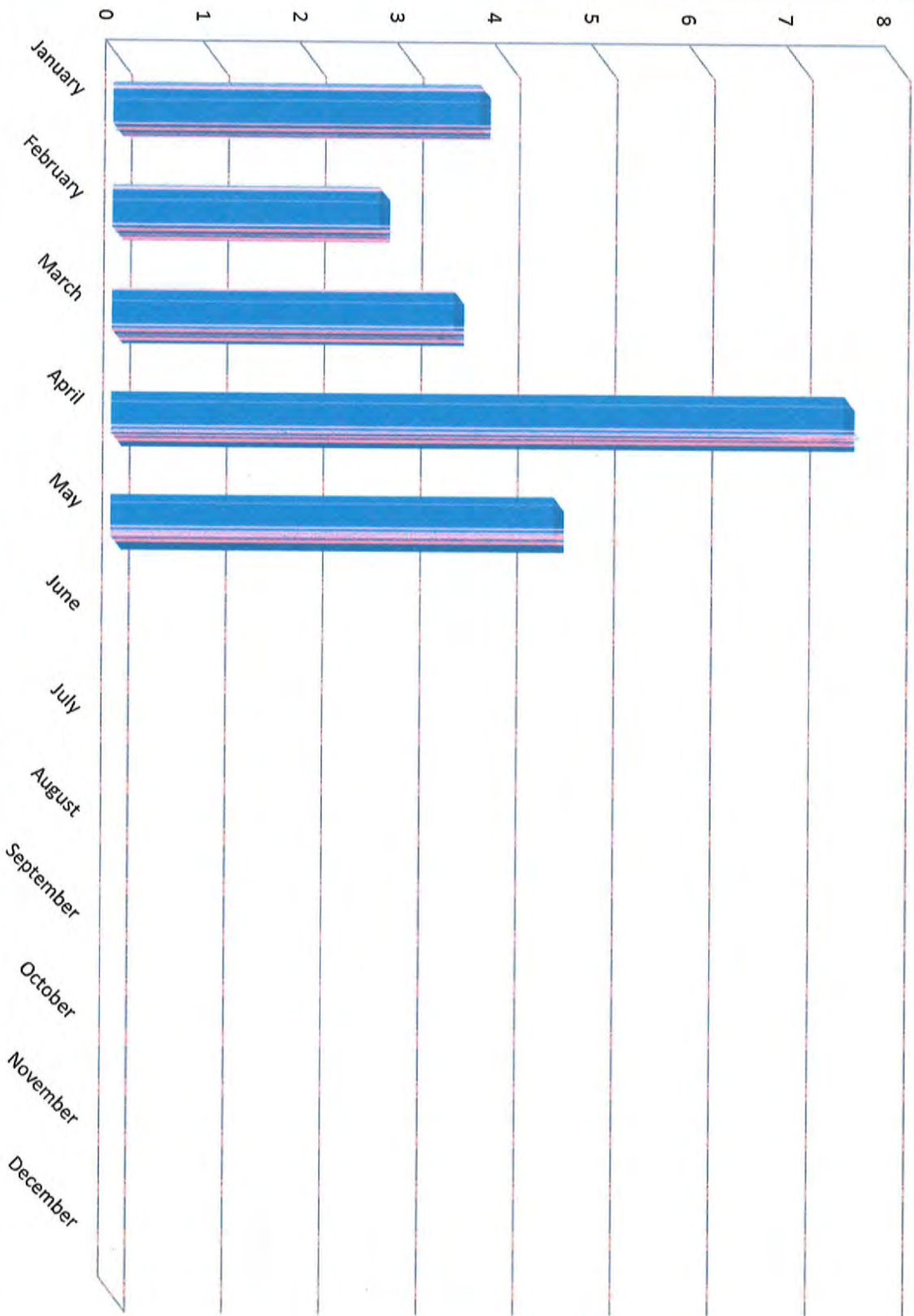
	WESTTOWN WAY	ELLIS LANE	PAOLI PIKE	WILSON DRIVE	SUMMIT	HERSHEY MILL	ASHBRIDGE	HICKS	RESERVOIR	BARKWAY
JANUARY	1,120,955	112,631	63,436	80,890	24,000			255,116	795,376	
FEBRUARY	1,249,173	138,449	68,472	88,803	24,000			287,831	881,433	
MARCH	1,182,533	126,933	67,479	84,197	24,000	860,074	75,186	291,520	827,109	28,696
APRIL	1,242,798	143,329	76,736	88,674	24,000	1,029,229	79,139	300,256	806,253	12,331
MAY	1,542,161	175,112	95,766	94,501	24,000	1,337,536	117,391	357,808	937,139	20,786
JUNE										
JULY										
AUGUST										
SEPTEMBER										
OCTOBER										
NOVEMBER										
DECEMBER										
Total Flows										
Monthly Ave	1,584,405	174,114	92,972	109,266	30,000	1,613,420	135,958	373,133	1,061,828	30,907

To
West Goshen 1,208,053

May Precip. 4.56 - 2014

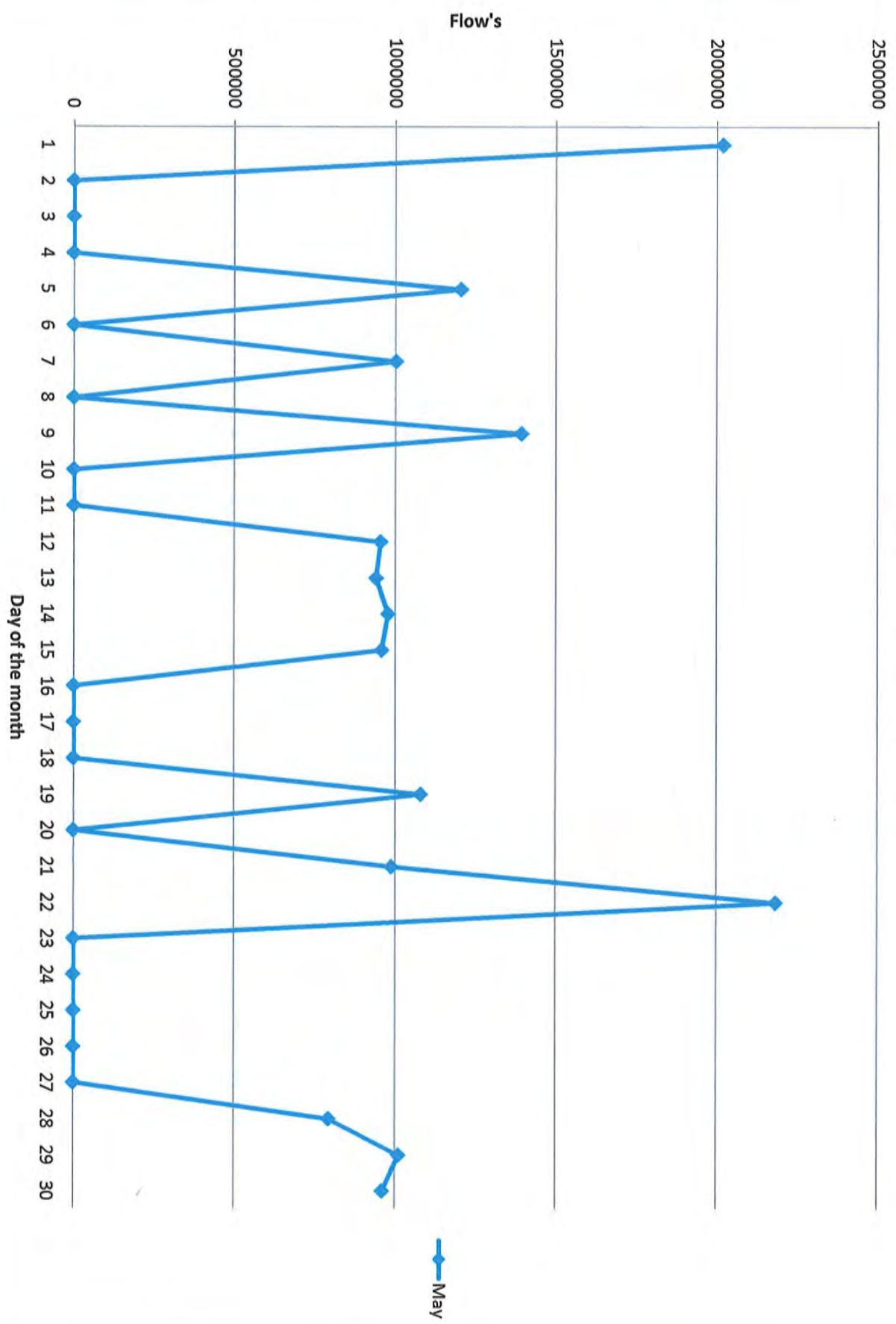


2013 Monthly Precipitation



■ Series1

Flowmeters May 2014



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draft
EAST GOSHEN TOWNSHIP MUNICIPAL AUTHORITY
MEETING MINUTES
May 12, 2014

The East Goshen Township Municipal Authority held their regular public meeting on Monday, May 12, 2014 at 7:00 pm at the East Goshen Township building. Members in attendance were: Vice Chairman Kevin Cummings, Fran Beck, Dana Pizarro, and Ed McAssey. Also in attendance were: Rick Smith (Township Manager), Carmen Battavio (Supervisor), Patrick McKenna (Attorney), Scott Towler (BFES), and Mike Ellis (Pennoni).

COMMON ACRONYMS:

<i>BFES – Big Fish Environmental Services</i>	<i>MA- Municipal Authority</i>
<i>BOS – Board of Supervisors</i>	<i>NPDES – National Pollutant Discharge Elimination System</i>
<i>CB – Conservancy Board</i>	<i>PC – Planning Commission</i>
<i>DEP – Department of Environmental Protection</i>	<i>PR – Park & Recreation Board</i>
<i>EPA – Environmental protection Agency</i>	<i>RCSTP – Ridley Creek Sewer Treatment Plant</i>
<i>HC – Historical Commission</i>	<i>SBR – Sequencing Batch Reactor</i>
<i>I&I – Inflow & Infiltration</i>	<i>SSO – Sanitary System Overflow</i>
<i>LCSTP – Lockwood Chase Sewer Treatment Plant</i>	<i>WAS – Waste Activated Sludge</i>

Call to Order & Pledge of Allegiance

Kevin called the meeting to order at 7:00 pm and led those present in the Pledge of Allegiance. There was a moment of silence to remember the troops and all veterans. Kevin asked if anyone would be recording the meeting and there was no response.

Chairman’s Report/Other Members’ Reports

None

Sewer Reports

1. Director of Public Works

Mark Miller reported for April 2014:

Meters: All meters were read on a daily basis. After the heavy rain last week, we walked the interceptor line and pulled manholes to do a visual inspection. The new portable meters have been ordered and the others were sent for calibration.

CC Collection: All pumping stations were visited on a daily basis. We did not incur any problems during the month. We assisted West Goshen last Wednesday night into Thursday morning. They had to shut down the Westtown Way Pump Station for repairs. We had to plug the interceptor line throughout the night to regulate the flow.

RC Collection: The pumping stations were visited on a routine basis with no problems to report. We have been repairing laterals on both systems from missing caps to broken stack pipes.

RC Plant: All the wet well pumps have been pulled out for routine maintenance. We will now begin to pull the SBR pumps for maintenance.

Alarms: We responded to 73 alarms for the month of April.

PA One Calls: We received 123 PA calls in April.

Rick added that the Falcon Lane Pump Station had to be taken out of service for 1 day last week.

1 **2. Pennoni Engineer's Report**

2 Mike Ellis submitted the following report:

3 Invoices: Invoices with summaries are provided under separate cover.

4 Ridley creek Sewage treatment Plant (RCSTP): Pennoni continues to provide operations
5 assistance as needed. No operational issues were brought to our attention in April.

6 Reserve Pump Station Elimination: The contractor has provided all of the required contract
7 closeout documents; however, we have not yet reviewed the as-built plans as of the date of this
8 memo (5/8). We intend to review the plans prior to the May 12 Municipal Authority meeting.

9 There are 2 outstanding punchlist items that still need to be addressed: removal of the filter sock
10 along the creek and re-seeding/re-topsoiling the lawn area at the old pump station driveway and
11 building. We have reviewed the other submitted closeout documents and final payment request.

12 We have certified the final payment request and forwarded it to the Township with a
13 recommendation that payment be approved but the check not issued until the as-built plans have
14 been reviewed and the punchlist work has been completed to the Township's satisfaction.

15 Reservoir Rd Pump Station Act 537 Plan: Conestoga-Rovers & Associates (CRA) finalized the
16 Phase 1 bog turtle habitat assessment report and submitted it to the U.S. Fish & Wildlife Service
17 (USFWS) in late April

18 We finalized the Act 537 plan report and plot plans. The Act 537 Plan was submitted to the East
19 Goshen Township Planning Commission, West Goshen Township Planning Commission,
20 Chester County Planning Commission, Chester County Health Department, and West Goshen
21 Sewage Treatment Plant operator on May 8, 2014. The agencies are allotted 60 days to review
22 and provide comments per PADEP Act 537 guidelines. A copy was also submitted to the
23 Municipal Authority to sign Section K of Component 3m.

24 As previously reported, the PA Dept. of Conservation and Natural Resources (DCNR) is
25 requiring a field botanical survey of potential threats to four special concern plant species. We
26 have discussed whether the survey is still required with DCNR given the revised force main
27 routing and revised PNDI search that returned no DCNR conflicts. We have submitted
28 documentation of the revised force main routing to DCNR, and we expect to receive feedback
29 from them by May 12.

30 Tentative Act 537 Planning schedule (assuming no botanical survey or Phase 2 bog turtle
31 screening):

	<u>Estimated Date</u>
32 Submit to County & Township agencies	May 8, 2014
33 USFWS Bog Turtle Habitat Coordination	June 22, 2014
34 60-day County & Township Review Period	July 8, 2014
35 Revisions per agency comments	July 11, 2014
36 30-Day Public Comment Period	August 11, 2014
37 East Goshen & West Goshen Twp. Adoption	August 19, 2014
38 PADEP Review and Approval (120 Days)	December 20, 2014

39 New Sewer Connections

40 We reviewed a design plan and report submission for a new private wastewater pump station for
41 Acero Precision at 1430 Enterprise Dr, discussed comments and questions with the PW Director
42 and forwarded comments to the design consultant. This will go through West Goshen. Also, we
43 received a plan from Sunny Ridge Farm for the Colonial Lane subdivision.

44
45
46

1 Fairway Village Manhole Lining

2 We coordinated scheduling of the SprayWall monolithic polyurethane interior manhole lining
3 system with the contractor including attending a pre-construction field meeting. They tentatively
4 plan to perform the work the week of June 10, 2014.

5 RCSTP Tank Covers

6 We continued the evaluation of flexible tank cover alternatives and forwarded a draft updated
7 summary memo to the Township. We are still awaiting feedback and pricing from a couple of
8 vendors before finalizing the memo. The memo will be finalized by the June Municipal
9 Authority meeting.

10
11 **3. Big Fish Environmental Services** – The following is a summary of Scott’s report for
12 April 2014:

13 **Treatment Process Operation-** During February 2014, there were no exceedances of the final
14 effluent discharge limitations for Outfall 001 and Outfall 002.

15 The monthly average total phosphorus concentration was 0.38 mg/L as compared to the
16 discharge limitation of 0.5 mg/L. During the month, the final effluent total phosphorus
17 concentration discharged ranged from 0.24 mg/L to 0.63 mg/L with an average of 44.4 gallons
18 per day of aluminum sulfate solution.

19 There was no discharge to Applebrook, Outfall 002, during March 2014.

20 During the month of April 2014, the total phosphorus concentrations at the final effluent outfall
21 001 were slightly elevated at or above the permitted discharge limitation of 0.5 mg/L.

22 Aluminum sulfate feed rates were increased as the month progressed to assist with total
23 phosphorus removal. During April, especially during 3 of the 4 scheduled sampling events, the
24 influent wastewater flow to the SBRs ranged from 12% to 43% above the March monthly
25 average. Periodically, the influent flow rate and volume to the SBRs resulted in “Filled
26 Decants.” The Filled Decant condition results in diverting a mixture of influent wastewater and
27 treated effluent directly to the post flow equalization basins, disc filters and disinfection prior to
28 discharge through outfall 001. The preliminary data indicates that the final effluent total
29 phosphorus concentration is likely to slightly exceed the permitted concentration of 0.50 mg/L.
30 The mass loading permit limitation is anticipated to remain below the monthly average of 3.0 lbs
31 per day.

32 Improvement management for total phosphorus during periods of elevated flow rates to the
33 SBRs resulting in Filled Decant conditions, include the following actions:

34 • Utilize the polymer feed system which provided polymer prior to filtration to assist with
35 coagulation/flocculation of solids and total phosphorus.

36 Coordination with Aqua Aerobics for a compatible product for the filter media is strongly
37 recommended.

38 • Provide for the capability of addition of aluminum sulfate to the influent wastewater during a
39 Filled Decant condition.

40 • Evaluate utilizing poly aluminum chloride (PAC) solution prior to filtration in place of
41 aluminum sulfate solution. High dosages of aluminum sulfate solution contribute to elevated
42 TSS concentrations and turbidity whereas PAC has negligible impacts.

43 • Re-evaluate the use of real time control loop system for integrating aluminum sulfate feed
44 rates with disc filter and/or SBR influent flow rates.

45 During March 2014, there was no discharge to Applebrook. The influent wastewater pollutant
46 concentrations and loading entering the wastewater treatment facility remained within the design

1 concentrations and loadings. Composite samples are collected at the influent doghouse manhole
2 and influent wet well. The influent flow meter reading is collected from the influent flow meter
3 located prior to the Screening Building, excluding the internal recycle flows.

4 SBRs 1,3 and 4 were in service during the month of April.

5 Process monitoring of each SBR included ammonia as N, Nitrite as N, Nitrate as N, COD, SSV,
6 MLSS and total phosphorus. Foam concentrations remain reduced during the month of April.

7 Increased sludge wasting was continued to maintain lower the MLSS concentrations. SBRs 3 &
8 4 were observed to have a maximum of approximately 5% of the surface area covered with a
9 medium brown colored foam. Adjustments to the treatment process to lower the MLSS
10 concentrations and raise the F:M ratio within the target range of 0.045 to 0.06 were ongoing
11 during the month.

12 Daily monitoring of the influent and final effluent 24-hour composites samples for total
13 phosphorus is ongoing. Daily analysis of the final effluent flow equalization grab sample total
14 phosphorus is ongoing. Sample collection and analysis of the influent wastewater collected at
15 the influent pump station wet well is ongoing.

16 Addition of aluminum sulfate solution to the SBRs to assist with phosphorus removal continued.
17 The volume of aluminum sulfate solution to the SBRs was increased from 45 gpd to as high as
18 90 gpd during April to assist with total phosphorus removal. Increased aluminum sulfate
19 dosages prior to filtration were increased during the month. Soda ash addition to the SBRs to
20 assist with maintaining the desired pH concentrations above 7.0 standard units continued during
21 the month. Soda ash addition to the SBRs during April averaged 308 pounds per day.

22 SBR #2 remains out of service as a treatment unit, however, partially filled with MLSS which is
23 continuously mixed and aerated. The majority of the contents were transferred to the sludge
24 holding tanks. This SBR was periodically placed in service to assist with managing peak flows
25 to reduce the impact of Filled Decant conditions.

26 The decanter for SBR 3 continued to be periodically observed as being slightly tilted within the
27 water level. The effluent knife valve was routinely closed and the decanter filled with water to
28 assist with lowering the decanter within the water level. The frequency of occurrence ranged
29 from one to several occurrences during the month. The SBR is planned for removal from service
30 during May for inspection.

31 32 **Solids Dewatering and Disposal:** April 2014

33 During the month, sludge wasting to the sludge holding tanks and decanting of the sludge
34 holding tanks was ongoing. Process monitoring included pH, total alkalinity and total solids.
35 Sludge holding tank #1 was in service. The level at the beginning of the month was 13.55 feet
36 and the level at the end of the month was 7.11 feet. The initial total solids concentration was
37 1.21% and ended the month as 0.625% total solids. The average pH concentration was 6.98 S.U.
38 and total alkalinity of 325 mg/L. No supernatant was decanted during the month. A total of 650
39 pounds of soda ash were added during the month for pH adjustment.

40 Sludge holding tank #2 was in service. The level at the beginning of the month was 5.81 feet
41 and the level at the end of the month was 13.78 feet. The initial total solids concentration was
42 0.69% and ended the month as 0.85% total solids. The average pH concentration was 7.05 S.U.
43 and total alkalinity of 319 mg/L. 207,013 gallons of supernatant were decanted during the
44 month. A total of 400 pounds of soda ash were added during the month for pH adjustment.

1 **Significant storm/hydraulic Loading Events** – On April 15, 2014 the influent flows rate to the
2 SBRs continuously exceeded 100% of the hydraulic design rate from 9:43 through 22:11
3 (approx. 13 hours). A total 7 Filled Decant and 1 Filled settle condition were observed for a total
4 of 302 minutes (5.03 hours). The effluent clarity remained good with no bulking or excessive
5 solids present within the discharge at outfall 001.

6 On April 30, 2014 through May 1, 2014, the influent flows rate to the SBRs continuously
7 exceeded 233% of the hydraulic design rate from 13030 through 2:24 (approx.. 12 hours). A
8 total of 11 Filled Decant and Filled settle conditions were observed for a total of 805 minutes
9 (13.4 hours). The effluent clarity remained good with no bulking or excessive solids present
10 within the discharge at outfall 001.

11 **Minor Repairs and Preventive Maintenance**

12 1. Replaced a ballast in UV bank #2

13 There were 7” of rain in the month of April.

14 Scott will write a letter for the compliance issue.

16 **Approval of Minutes**

17 Ed moved to accept the minutes of April 21, 2014 as corrected. Fran seconded the motion. The
18 motion passed unanimously.

20 **Approval of Invoices**

21 1. Fran moved to approve payment of the following Pennoni invoices:

22 a. Pennoni #587993 \$ 197.25

23 b. Pennoni #587994 \$ 4,724.50

24 c. Pennoni #587995 \$ 992.00

25 d. Pennoni #587996 \$ 4,562.25

26 e. Pennoni #587997 \$ 644.25

27 Ed seconded the motion. The motion passed unanimously.

29 **Liaison Reports**

30 Board of Supervisors – Carmen reported that they are continuing to check on the Sunoco gas line
31 project. Right now they have a certificate of Public Convenience. Phase 1 is to reactivate the
32 current 8” line.

34 **Financial Reports**

35 1. Jon Altshul’s May 5, 2014 Financial Report for April 2014:

36 The Municipal Authority recorded \$133 in revenues and \$15,677 in expenses in April, a
37 difference of -\$15,545. The expenses were from payments to Pennoni and Gawthrop
38 Greenwood. The fund balance is now \$1,598,005.

40 **Old Business**

41 1. Tank Covers - The Municipal Authority requested this feasibility report in order to be
42 proactive and find out what alternatives are available if needed in the future. Mike presented his
43 findings so far and provided pictures of the different types of covers.

1 **Goals**

- 2 1. Rick provided a draft mission statement. Review will be deferred to the June meeting.
3 2. Kevin will submit an article for the next newsletter which is due 7/1/14.
4 3. Act 537 Plan – Revisions submitted to EGMA, EGPC, WGSTP, WGPC and CCPC.
5 4. Continue to implement I&I Plan – April 14 status report received.
6

7 **New Business**

- 8 1. Kevin moved to authorize the Municipal Authority Chairman, Jack Yahres to sign the
9 Reservoir Road Act 537 Revision. Ed seconded the motion. Mike explained how calculations
10 were made. The motion passed unanimously.
11

12 **Any Other Matter**

- 13 1. Reserve Pump Station Sanitary Sewer Diversion – In the May 9, 2014 memo – Mike Ellis
14 recommended that the MA conditionally approve Payment #3 (Final) to Ronald Smith Inc. for
15 the subject project in the amount of \$7,316.82. The recommended condition is that payment not
16 be physically made until the contractor addresses the following items to the satisfaction of the
17 Authority Engineer, Township Manager and Township PW Director:

- 18 a. Remove the filter sock along the creek
19 b. Restore the constructed lawn area at the former location of the pump station building
20 and driveway. Grass is not growing in well and the soil is rocky. Additional topsoil and
21 seed is expected to be needed.
22 c. Submit a corrected Application and Certification form for Payment #3(Final). We've
23 marked up the submitted application with required revisions and have attached it for your
24 reference.
25 d. As-built plans have been submitted by the contractor directly to the Township.
26 Pennoni needs to review the plans to confirm they are acceptable. Mike intends to
27 perform the review prior to the May 12th MA meeting.

28 We have reviewed the following attached contract closeout documents and found them
29 acceptable: Daily Field Report from Earth Engineering Inc. certifying the backfill compaction
30 within the detention basin berm; contractor's release; consent of surety to final payment; contract
31 bond (including the maintenance bond); and payroll certification #1-7 for Ronald Smith Inc.
32 Ed made a motion to approve the payment of \$7,316.82 subject to referenced conditions and
33 approval by the Township Manager. Fran seconded the motion. The motion passed
34 unanimously.
35

36 **Adjournment**

37 There being no further business, Fran moved to adjourn the meeting. Dana seconded the motion.
38 The motion passed unanimously. The meeting was adjourned at 8:00 pm.
39

40 Respectfully submitted,

41
42
43 Ruth Kiefer
44 Recording Secretary



INVOICE

Newark, DE
302-655-4451 Fax: 302-654-2895

Remit Payment To:
Pennoni Associates Inc.
P.O. Box 827328
Philadelphia, PA 19182-7328

East Goshen Municipal Authority
1580 Paoli Pike
West Chester, PA 19380-6199
Attention: Louis F. Smith, Twp Mgr.

Invoice # : 591749
Invoice Date : 05/21/2014
Project : EGMA1306
Project Name : Reserve PS Diversion Construction

For Services Rendered through: 5/11/2014

Continued coordination with contractor to obtain required contract closeout documents, reviewed Pay App #3 (Final) and provided mark-ups to contractor, prepared and issued memo recommending conditional approval of Pay App #3, and coordinated w/ contractor and Township for contractor to remove filter sock and to address restoration issues at location of former pump station building and driveway including field visit by Sr. Engineering Tech to evaluate scope of needed restoration.

Phase : **** -- Professional Services

Total Phase : **** -- Professional Services

Labor :	619.75
Expense :	0.00
Phase Total :	619.75

Amount Due This Invoice

Fee :	20,000.00
Prior Billings :	14,437.75
Current Billings :	619.75
Total Billings :	15,057.50

\$619.75

Phase : **** -- Professional Services

Labor

<u>Class</u>	<u>Hours/ Units</u>	<u>Rate</u>	<u>Amount</u>
Authority Engineer	4.75	113.00	536.75
Associate Engineer	1.00	83.00	83.00
Labor Total:	5.75		619.75

Total Phase : **** -- Professional Services

Labor :	\$619.75
Expense :	\$0.00

Total Project : EGMA1306 -- Reserve PS Diversion Construction

Labor :	\$619.75
Expense :	\$0.00

o/c RS 6-7-14

East Goshen Municipal Authority
EGMA1306 Invoice Summary
Invoice Date 05/21/2014

Project: EGMA1306
Pennoni Job No.: Reserve PS Diversion Construction P
Invoice No: 591749
Invoice Period: 4/14/2014 to 5/11/2014
Initial Authorization: \$ 20,000.00 **Date:** 5/21/2014
Contract Amount: \$ 20,000.00
Previously Invoiced: \$ 14,437.75
Current Invoice: \$ 619.75
Invoiced to Date (\$): \$ 15,057.50
Invoiced to Date (%): 75%
Remaining Budget (\$): \$ 4,942.50
Remaining Budget (%): 25%

Budget by Phase:

	Reserve PS Diversion Construction Phase
Phase Name:	
Phase Budget:	\$ 20,000.00
Previously Invoiced:	\$ 14,437.75
Current Invoice:	\$ 619.75
Invoiced to Date (\$):	\$ 15,057.50
Invoiced to Date (%):	75%
Remaining Budget (\$):	\$ 4,942.50
Remaining Budget (%):	25%

Comments: Continued coordination with contractor to obtain required contract closeout documents, reviewed Pay App #3 (Final) and provided mark-ups to contractor, prepared and issued memo recommending conditional approval of Pay App #3, and coordinated w/ contractor and Township for contractor to remove filter sock and to address restoration issues at location of former pump station building and driveway including field visit by Sr. Engineering Tech to evaluate scope of needed restoration.



INVOICE

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East Goshen Municipal Authority
1580 Paoli Pike
West Chester, PA 19380-6199
Attention: Louis F. Smith, Twp Mgr.

Invoice # : 591750
Invoice Date : 05/21/2014
Project : EGMA1307
Project Name : Reservoir Rd PS Act 537 Planning

For Services Rendered through: 5/11/2014

Finalized Act 537 Plan Update report and plot plans; submitted Act 537 Plan Update to East Goshen Township Planning Commission, West Goshen Township Planning Commission, West Goshen Sewage Treatment Plant Operator, Chester County Planning Commission, and Chester County Health Department; reviewed Conestoga-Rovers & Associates' (CRA) Phase 1 Bog Turtle Habitat Survey Report and coordinated submission to U.S. Fish & Wildlife Service; and prepared and submitted a revised PNDI Search and additional documentation to DCNR to justify our request to eliminate their botanical survey requirement.

Phase : 02 -- Existing Conditions Survey

Total Phase : 02 -- Existing Conditions Survey

Labor :	1,107.50
Expense :	0.00
Phase Total :	1,107.50

Phase : 03 -- Act 537 Plan Update

Total Phase : 03 -- Act 537 Plan Update

Labor :	3,828.75
Expense :	0.00
Phase Total :	3,828.75

Phase : 04 -- Additonal Meetings

Total Phase : 04 -- Additonal Meetings

Labor :	825.00
Expense :	0.00
Phase Total :	825.00

Amount Due This Invoice

\$5,761.25

OK RS 6-7-14

Continued on next page...

INVOICES DUE ON RECEIPT. Invoices outstanding over 30 days will have a Service Charge of 1 1/2% per month.

...Continued from previous page

Phase : 02 -- Existing Conditions Survey

Labor Class	<i>Hours/ Units</i>	<i>Rate</i>	<i>Amount</i>
Authority Engineer	6.75	110.00	742.50
Graduate Engineer	5.00	73.00	365.00
Labor Total:	11.75		1,107.50

Total Phase : 02 -- Existing Conditions Survey	Labor :	\$1,107.50
	Expense :	\$0.00

Phase : 03 -- Act 537 Plan Update

Labor Class	<i>Hours/ Units</i>	<i>Rate</i>	<i>Amount</i>
Authority Engineer	20.00	110.00	2,200.00
Senior Environmental Scientist	2.50	85.00	212.50
Graduate Engineer	12.25	73.00	894.25
Engineering Technician II	7.25	72.00	522.00
Labor Total:	42.00		3,828.75

Total Phase : 03 -- Act 537 Plan Update	Labor :	\$3,828.75
	Expense :	\$0.00

Phase : 04 -- Additonal Meetings

Labor Class	<i>Hours/ Units</i>	<i>Rate</i>	<i>Amount</i>
Authority Engineer	7.50	110.00	825.00
Labor Total:	7.50		825.00

Total Phase : 04 -- Additonal Meetings	Labor :	\$825.00
	Expense :	\$0.00

Total Project : EGMA1307 -- Reservoir Rd PS Act 537 Planning	Labor :	\$5,761.25
	Expense :	\$0.00

East Goshen Municipal Authority
EGMA1307 Invoice Summary
Invoice Date 05/21/2014

Project: EGMA1307
Pennoni Job No.: Reservoir Rd PS Act 537 Planning
Invoice No: **591750**
Invoice Period: 4/14/2014 to 5/11/2014
Initial Authorization: \$ 77,400.00 **Date:** 5/21/2014
Contract Amount: \$ 84,900.00
Previously Invoiced: \$ 64,094.25
Current Invoice: \$ 5,761.25
Invoiced to Date (\$): \$ 69,855.50
Invoiced to Date (%): 82%
Remaining Budget (\$): \$ 15,044.50
Remaining Budget (%): 18%

Budget by Phase:

	Reservoir Rd PS Act 537 Planning
Phase Name:	
Phase Budget:	\$ 84,900.00
Previously Invoiced:	\$ 64,094.25
Current Invoice:	\$ 5,761.25
Invoiced to Date (\$):	\$ 69,855.50
Invoiced to Date (%):	82%
Remaining Budget (\$):	\$ 15,044.50
Remaining Budget (%):	18%

Comments: Finalized Act 537 Plan Update report and plot plans; submitted Act 537 Plan Update to East Goshen Township Planning Commission, West Goshen Township Planning Commission, West Goshen Sewage Treatment Plant Operator, Chester County Planning Commission, and Chester County Health Department; reviewed Conestoga-Rovers & Associates' (CRA) Phase 1 Bog Turtle Habitat Survey Report and coordinated submission to U.S. Fish & Wildlife Service; and prepared and submitted a revised PNDI Search and additional documentation to DCNR to justify our request to eliminate their botanical survey requirement.



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P.O. Box 827328
Philadelphia, PA 19182-7328

East Goshen Municipal Authority
1580 Paoli Pike
West Chester, PA 19380-6199
Attention: Louis F. Smith, Twp Mgr.

Invoice # : 591751
Invoice Date : 05/21/2014
Project : EGMA1401
Project Name : 2014 General Services

For Services Rendered through: 5/11/2014

Prepared April and May Engineer's Reports; attended April Municipal Authority (MA) meeting; continued coordination with Abel Recon to obtain discounted pricing for SprayWall manhole lining demonstration for Fairway Village manhole, prepared memo to MA summarizing cost and scope for consideration/approval, coordinated schedule with contractor following MA approval; continued RCSTP tank cover research, coordinated with vendors, and updated and issued DRAFT tank cover alternatives memo Update #1.

Phase : **** -- Professional Services

Total Phase : **** -- Professional Services

Labor :	1,766.75
Expense :	0.00
Phase Total :	1,766.75

Amount Due This Invoice

\$1,766.75

Fee :	10,300.00
Prior Billings :	3,813.25
Current Billings :	1,766.75
Total Billings :	5,580.00

Phase : **** -- Professional Services

Labor Class	Hours/Units	Rate	Amount
Authority Engineer	10.75	113.00	1,214.75
Project Engineer	4.50	95.00	427.50
Senior Engineering Technician	1.50	83.00	124.50
Labor Total:	16.75		1,766.75

Total Phase : **** -- Professional Services

Labor :	\$1,766.75
Expense :	\$0.00

Total Project : EGMA1401 -- 2014 General Services

Labor :	\$1,766.75
Expense :	\$0.00

OKTS 6-7-14

East Goshen Municipal Authority
EGMA1401 Invoice Summary
Invoice Date 05/21/2014

Project:	EGMA1401		
Pennoni Job No.:	2014 General Services		
Invoice No:	591751		
Invoice Period:	4/14/2014	to	5/11/2014
Initial Authorization:	\$ 10,300.00	Date:	5/21/2014
Contract Amount:	\$ 10,300.00		
Previously Invoiced:	\$ 3,813.25		
Current Invoice:	\$ 1,766.75		
Invoiced to Date (\$):	\$ 5,580.00		
Invoiced to Date (%):	54%		
Remaining Budget (\$):	\$ 4,720.00		
Remaining Budget (%):	46%		

Budget by Phase:

Phase Name:	2014 General Services		
Phase Budget:	\$ 10,300.00		
Previously Invoiced:	\$ 3,813.25		
Current Invoice:	\$ 1,766.75		
Invoiced to Date (\$):	\$ 5,580.00		
Invoiced to Date (%):	54%		
Remaining Budget (\$):	\$ 4,720.00		
Remaining Budget (%):	46%		

Comments: Prepared April and May Engineer's Reports; attended April Municipal Authority (MA) meeting; continued coordination with Abel Recon to obtain discounted pricing for SprayWall manhole lining demonstration for Fairway Village manhole, prepared memo to MA summarizing cost and scope for consideration/approval, coordinated schedule with contractor following MA approval; continued RCSTP tank cover research, coordinated with vendors, and updated and issued DRAFT tank cover alternatives memo Update #1..



INVOICE

Newark, DE
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Philadelphia, PA 19182-7328

East Goshen Municipal Authority
1580 Paoli Pike
West Chester, PA 19380-6199
Attention: Louis F. Smith, Twp Mgr.

Invoice # : 591752
Invoice Date : 05/21/2014
Project : EGMA1402
Project Name : 2014 Semi-Annual I&I Reports

For Services Rendered through: 5/11/2014

Finalized and submitted Semi-Annual I/I Report #11 including updating Pennoni's Township-wide sewer mapping with the Township's new GPS-located manhole locations.

Phase : **** -- Professional Services

Total Phase : **** -- Professional Services

Labor :	1,238.00
Expense :	0.00
Phase Total :	1,238.00

Amount Due This Invoice

Fee :	10,300.00
Prior Billings :	4,562.25
Current Billings :	1,238.00
Total Billings :	5,800.25

\$1,238.00

Phase : **** -- Professional Services

Labor Class	Hours/Units	Rate	Amount
Authority Engineer	1.00	113.00	113.00
Graduate Engineer	15.00	75.00	1,125.00
Labor Total:	16.00		1,238.00

Total Phase : **** -- Professional Services

Labor :	\$1,238.00
Expense :	\$0.00

Total Project : EGMA1402 -- 2014 Semi-Annual I&I Reports

Labor :	\$1,238.00
Expense :	\$0.00

OK RS 6-7-14

East Goshen Municipal Authority
EGMA1401 Invoice Summary
Invoice Date 05/21/2014

Project: EGMA1402
Pennoni Job No.: 2014 Semi-Annual I&I Reports
Invoice No: **591752**
Invoice Period: 4/14/2014 to 5/11/2014
Initial Authorization: \$ 10,300.00 **Date:** 5/21/2014
Contract Amount: \$ 10,300.00
Previously Invoiced: \$ 4,562.25
Current Invoice: \$ 1,238.00
Invoiced to Date (\$): \$ 5,800.25
Invoiced to Date (%): 56%
Remaining Budget (\$): \$ 4,499.75
Remaining Budget (%): 44%

Budget by Phase:

	2014 Semi-Annual I&I Reports
Phase Name:	
Phase Budget:	\$ 10,300.00
Previously Invoiced:	\$ 4,562.25
Current Invoice:	\$ 1,238.00
Invoiced to Date (\$):	\$ 5,800.25
Invoiced to Date (%):	56%
Remaining Budget (\$):	\$ 4,499.75
Remaining Budget (%):	44%

Comments: Finalized and submitted Semi-Annual I/I Report #11 including updating Pennoni's Township-wide sewer mapping with the Township's new GPS-located manhole locations.



Gawthrop Greenwood, PC
Attorneys at Law

17 East Gay Street, Suite 100 | (p) 610-696-8225
West Chester, PA 19381-0562 | (f) 610-344-0922
gglaw@gawthrop.com | www.gawthrop.com

East Goshen Municipal Authority
1580 Paoli Pike
West Chester PA 19380

Page: 1
04/30/2014
Client No: 6604-001M
Invoice No: 119419

General Authority Services

Fees

		Hours	
04/03/2014	RFA Draft sewer connection agreement form for use by Authority.	1.30	
04/04/2014	RFA Review and revise proposed sewer connection agreement.	0.70	
04/07/2014	RFA Message to R Smith sending proposed sewer connection agreement.	0.30	
04/08/2014	RFA Review message from R Smith suggesting changes to sewer connection agreement; draft revisions to same.	1.00	
04/09/2014	RFA Review and revise sewer connection agreement suggested by R Smith; Message to R Smith regarding revised sewer connection agreement.	0.60	
04/21/2014	RFA Review packet for Authority meeting of 4/21; attend regular meeting of Authority.	2.60	
	For Current Services Rendered	6.50	1,300.00

Recapitulation

<u>Timekeeper</u>	<u>Hours</u>	<u>Hourly Rate</u>	<u>Total</u>
Robert F. Adams	6.50	\$200.00	\$1,300.00

Previous Balance

~~\$960.00~~

Total Current Charges

1,300.00

OK TRS 6-7-14

East Goshen Municipal Authority

General Authority Services

Page: 2
04/30/2014
Client No: 6604-001M
Invoice No. 119419

04/22/2014	Fee Payment	-960.00
	Balance Due	<u>\$1,300.00</u>

To ensure proper credit, please write client number on your check when returning payment. Thank You.
A finance charge of 1.25% per month (15% annually) may be charged on balances not paid 60 days after the invoice date.

Memo

To: Municipal Authority
From: Jon Altshul
Re: MA May Financial Reports
Date: June 5, 2014

The Municipal Authority recorded \$6,847 in revenues (primarily from tapping fees) and \$15,570 in expenses in May, a difference of -\$8,723. The fund balance is now \$1,589,282.

A complete list of all year-to-date expenses and revenues is provided.

EAST GOSHEN TOWNSHIP
 1580 PAOLI PIKE
 WEST CHESTER, PA
 Municipal Authority
 May 2014

Account Title	Acct #	Annual Budget	Month To Date Actual	Year To Date Actual
MUNICIPAL AUTHORITY BEGINNING FUND BALANCE				
			1,598,004.89	
RCSTP BUDGET				
REVENUE				
INTEREST EARNED - RCSTP EXPANSION	07341 1020	2,000.00	134.59	663.00
GRANT REVENUE	07392 0800	0.00	0.00	0.00
TOTAL REVENUE		2,000.00	134.59	663.00
EXPENSES				
R.C.-CAP. PROJ.-ENGINEER	07424 7451	0.00	0.00	0.00
R.C. CAP EXPANSION GEN'L CONTRACTOR	07424 7452	0.00	0.00	0.00
R.C. CAP EXPANSION - ELECTRICAL	07424 7453	0.00	0.00	0.00
R.C. CAP EXP CONTINGENCY CAPITAL	07424 7454	0.00	0.00	0.00
R.C. CAP EXP CONTINGENCY ONGOING	07424 7455	0.00	0.00	0.00
R.C. CAP EXP ADDITIONAL CONTINGENCY	07424 7456	0.00	0.00	0.00
TRANSFER TO SEWER SINKING FUND	07492 0550	0.00	0.00	0.00
TRANSFER TO AUTHORITY CAP FUND	07492 0990	0.00	0.00	0.00
TOTAL EXPENSES		0.00	0.00	0.00
RCSTP NET RESULT		2,000.00	134.59	663.00

EAST GOSHEN TOWNSHIP
 1580 PAOLI PIKE
 WEST CHESTER, PA
 Municipal Authority
 May 2014

Account Title	Acct #	Annual Budget	Month To Date Actual	Year To Date Actual
OPERATING BUDGET				
REVENUE				
INTEREST EARNINGS	07341 1000	27.00	0.90	5.73
C.C. TAPPING FEES	07364 1100	124,000.00	2,000.00	22,000.00
R.C. TAPPING FEES	07364 1110	21,444.00	4,288.80	10,288.80
CONNECTION FEES - SEWER	07364 1130	0.00	281.88	1,127.52
MISCELLANEOUS REVENUE	07380 1000	0.00	141.12	564.48
TRANSFER FROM SEWER OPERATING	07392 0500	0.00	0.00	21,000.00
TOTAL REVENUE		145,471.00	6,712.70	54,986.53
EXPENSES				
ADMINISTRATIVE WAGES	07424 1400	32,768.00	0.00	8,043.02
MISCELLANEOUS EXPENSE	07424 3000	4,000.00	0.00	1,450.00
MUNIC.AUTH.-AUDITING	07424 3110	10,800.00	0.00	0.00
ENGINEERING SERVICES	07424 3130	35,525.00	6,198.50	22,285.50
LEGAL SERVICES	07424 3140	7,000.00	1,300.00	3,760.00
M.C.-DVRFA-DEBT SERVICE	07471 1000	22,120.00	0.00	0.00
M.C.-DVRFA-INTEREST PAYMN	07472 1000	5,115.00	0.00	0.00
M.C.-DVRFA-INTEREST PAYMN	07472 1010	0.00	0.00	0.00
TOTAL EXPENSES		117,328.00	7,498.50	35,538.52
OPERATING NET RESULT		28,143.00	(785.80)	19,448.01

EAST GOSHEN TOWNSHIP
 1580 PAOLI PIKE
 WEST CHESTER, PA
 Municipal Authority
 May 2014

Account Title	Acct #	Annual Budget	Month To Date		Year To Date	
			Actual		Actual	
CAPITAL BUDGET						
REVENUE						
LOAN PROCEEDS-SEWER PROJECT	07393 1001	0.00	0.00	0.00	0.00	0.00
TRANSFER FROM SEWER CAP RESERVE	07392 0900	0.00	0.00	0.00	0.00	0.00
TOTAL REVENUE		0.00	0.00	0.00	0.00	0.00
EXPENSES						
MARYDELL PUMP STATION - ENGINEER	07425 1000	0.00	0.00	0.00	0.00	0.00
MARYDELL PUMP STATION -CONSTRUCTION	07425 2000	0.00	0.00	0.00	0.00	0.00
MANHOLE COVER REPLACEMENTS	07424.7405	0.00	0.00	0.00	0.00	0.00
C. C. CAPITAL - COLLECTION	07424.7420	0.00	0.00	0.00	0.00	0.00
LOCHWOOD ABANDONMENT ENGINEER	07424 7475	0.00	0.00	0.00	0.00	0.00
LOCHWOOD ABANDONMENT CONSTRUCTION	07424 7476	0.00	0.00	0.00	0.00	0.00
LOCHWOOD ELIMINATION PHASE 2	07424 7477	0.00	0.00	0.00	0.00	0.00
HERSHEY MILL STATION - ENGINEER	07426 1000	0.00	0.00	0.00	0.00	0.00
HERSHEY MILL STATION - CONSTRUCTION	07426 2000	0.00	0.00	0.00	0.00	0.00
RESERVE PUMP STATION - ENGINEER	07427 1000	0.00	197.25	197.25	197.25	197.25
RESERVE PUMP STATION - CONSTRUCTION	07427 2000	0.00	0.00	0.00	0.00	0.00
RESERVOIR PUMP STATION - ENGINEER	07428 1000	75,000.00	7,874.50	7,874.50	28,902.25	28,902.25
RESERVOIR PUMP STATION CONSTRUCTION	07428 2000	0.00	0.00	0.00	0.00	0.00
TOTAL EXPENSES		75,000.00	8,071.75	8,071.75	29,099.50	29,099.50
CAPITAL NET RESULT		(75,000.00)	(8,071.75)	(8,071.75)	(29,099.50)	(29,099.50)

MUNICIPAL AUTHORITY ENDING FUND BALANCE 1,589,281.93

East Goshen Township General Ledger

Report Date 06/04/14

GL Transaction Details

PAGE 1

Acct #	Per	Src Trx #	Debits	Credits	Beg/End Bal	Date	Check/Ref #	ID #	Name/Description
07341-1000					0.00				
		INTEREST EARNINGS							
	1401	JE 41027		0.58		02/04/14	INTEREST		INTEREST EARNED JANUARY 2014 07 FUND
			0.00	0.58	-0.58				
	1402	41391		1.33		03/04/14	INTEREST		INTEREST EARNED FEBRUARY 2014 07100.1000
			0.00	1.33	-1.91				
	1403	41840		1.71		04/01/14	INTEREST		INTEREST EARNED MARCH 2014 07 FUND
			0.00	1.71	-3.62				
	1404	42321		1.21		05/02/14	INTEREST		INTEREST EARNED APRIL 2014 07100.1000
			0.00	1.21	-4.83				
	1405	42739		0.90		06/02/14	INTEREST		INTEREST EARNED MAY 2014 07100.1000
			0.00	0.90	-5.73				
			0.00	0.90	-5.73				
			0.00	5.73	-5.73				
07341-1020					0.00				
		INTEREST EARNED - RCSTP EXPANSION							
	1401	41028		137.33		02/04/14	INTEREST		INTEREST EARNED JANUARY 2014 07 CONSTRUCTION FUND
			0.00	137.33	-137.33				
	1402	41392		123.56		03/04/14	INTEREST		INTEREST EARNED FEBRUARY 2014 07 CONSTRUCTION FUND
			0.00	123.56	-260.89				
	1403	41841		136.07		04/01/14	INTEREST		INTEREST EARNED MARCH 2014 07 CONSTRUCTION FUND
			0.00	136.07	-396.96				
	1404	42322		131.45		05/02/14	INTEREST		INTEREST EARNED APRIL 2014 CONSTRUCT.FUNDS
			0.00	131.45	-528.41				
	1405	42740		134.59		06/02/14	INTEREST		INTEREST EARNED MAY 2014 07 FUND - CONSTRUCTION
			0.00	134.59	-663.00				
			0.00	134.59	-663.00				
			0.00	663.00	-663.00				
07364-1100					0.00				
		C.C. TAPPING FEES							
	1401	CR 40976		12,600.00		01/31/14	3034	8069 1	GOSHEN MEADOWS INVESTORS L.P.

East Goshen Township General Ledger

Report Date 06/04/14

GL Transaction Details

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Acct #	Per	Src Trx #	Debits	Credits	Beg/End Bal	Date	Check/Ref #	ID #	Name/Description
			0.00	12,600.00	-12,600.00				
1402		41258		5,400.00		02/24/14	3553	8069	1 GOSHEN MEADOWS INVESTORS L.P.
	RE	41263		2,000.00		02/24/14	41263 1		TAP IN FEE - 211 ELLIS LANE
			0.00	7,400.00	-20,000.00				
1405		42661		2,000.00		05/29/14	42661 1		TAP IN FEE FOR 195 WYLLPEN PL
			0.00	2,000.00	-22,000.00				
			0.00	22,000.00	-22,000.00				
07364-1110		R.C.TAPPING FEES			0.00				
1402		41280		2,000.00		02/25/14	41280 1		TAP IN FEE-903 SORELL HILL LT2
			0.00	2,000.00	-2,000.00				
1403		41553		2,000.00		03/13/14	41553 1		TAP IN FEE FOR 909 SORRELL LT4
		41608		2,000.00		03/17/14	41608 1		TAP IN FEE-905 SORRELL LOT 3
			0.00	4,000.00	-6,000.00				
1405	CR	42355		4,288.80		05/06/14	130	6499	1 BOWER, JUDITH
			0.00	4,288.80	-10,288.80				
			0.00	10,288.80	-10,288.80				
07364-1130		CONNECTION FEES - SEWER			0.00				
1402		41044		423.00		02/04/14	350	8035	1 JACOBS, ROBERT & CHERYL
		41124		423.00		02/14/14	774	8033	1 GEORGE SMITH & CHRISTINA CONLE
	JE	41045	141.12			02/04/14	PINE ROCK		ANNUAL PINE ROCK INSTALLMENT
		41125	141.12			02/14/14	PINE ROCK		ANNUAL PINE ROCK INSTALLMENT
			282.24	846.00	-563.76				
1403	CR	41402		423.00		03/04/14	2307	8034	1 STOFFLET, MICHAEL
	JE	41407	141.12			03/04/14	PINE ROCK		ANNUAL PINE ROCK INSTALLMENT
			141.12	423.00	-845.64				
1405	CR	42378		423.00		05/07/14	1021	8036	1 PAPPANO, JOSEPH & PATRICIA
	JE	42380	141.12			05/07/14	PINE ROCK		ANNUAL PINE ROCK INSTALLMENT
			141.12	423.00	-1,127.52				
			564.48	1,692.00	-1,127.52				
07380-1000		MISCELLANEOUS REVENUE			0.00				
1402		41045		141.12		02/04/14	PINE ROCK		ANNUAL PINE ROCK INSTALLMENT
		41125		141.12		02/14/14	PINE ROCK		ANNUAL PINE ROCK INSTALLMENT
			0.00	282.24	-282.24				
1403		41407		141.12		03/04/14	PINE ROCK		ANNUAL PINE ROCK INSTALLMENT

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GL Transaction Details

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Acct #	Per	Src Trx #	Debits	Credits	Beg/End Bal	Date	Check/Ref #	ID #	Name/Description
			0.00	141.12	-423.36				
1405		42380		141.12		05/07/14	PINE ROCK		ANNUAL PINE ROCK INSTALLMENT
			0.00	141.12	-564.48				
			0.00	564.48	-564.48				
07392-0500		TRANSFER FROM SEWER OPERATING			0.00				
	1401	40674		1,000.00		01/08/14	DEPOSIT		DEPOSIT \$ INTO MA GENERAL FROM 05 FUND
		40747		20,000.00		01/14/14	XFER		XFER \$ FROM SEWER TO MA TO COVER EXPENSES
			0.00	21,000.00	-21,000.00				
			0.00	21,000.00	-21,000.00				
07424-1400		ADMINISTRATIVE WAGES			0.00				
	1403 CD	41815	8,043.02			03/31/14	2237		425 EAST GOSHEN TOWNSHIP - GENERAL 1ST QTR. 2014 MUN. AUTH. REIMBURSM
			8,043.02	0.00	8,043.02				
			8,043.02	0.00	8,043.02				
07424-3000		MISCELLANEOUS EXPENSE			0.00				
	1401	40597	500.00			01/06/14	2228		2737 DEP - COMMONWEALTH OF PA NPDES PERMITS - CHAPTER 92A 2014
			950.00			01/06/14	2229		2132 PENNSYLVANIA MUNICIPAL AUTHORITIES ASSOC 2014 ACTIVE MEMBERSHIP DUES
		***	1,450.00	0.00	***				
			1,450.00	0.00	1,450.00				
			1,450.00	0.00	1,450.00				
07424-3130		ENGINEERING SERVICES			0.00				
		40653	-663.75			01/06/14	2224		1052 PENNONI ASSOCIATES INC. VOID CK. DUE TO PRINTER PROBLEM
		40743	663.75			01/14/14	2230		1052 PENNONI ASSOCIATES INC. SERVICES THRU 12/8/13 GENERAL S
	JE	40746		1,845.00		01/14/14	REFUND		PENNONI REFUND DUE TO DUPLICATE PAYMENT
			0.00	1,845.00	-1,845.00				
	1402 CD	41103	2,236.50			02/11/14	2233		1052 PENNONI ASSOCIATES INC. SERVICES THROUGH 1/12/14 GEN.SER
			2,236.50	0.00	391.50				

East Goshen Township General Ledger

Report Date 06/04/14

GL Transaction Details

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Acct #	Per	Src Trx #	Debits	Credits	Beg/End Bal	Date	Check/Ref #	ID #	Name/Description
07424-3130	1403	CD 41540	6,887.25			03/12/14	2236	1052	PENNONI ASSOCIATES INC. SERVICES THRU 2/9/14 2013 CHAP.
			6,887.25	0.00	7,278.75				
1404	42153		8,808.25			04/23/14	2239	1052	PENNONI ASSOCIATES INC. SERVICES THRU 3/16/14 CHAP.94 RE
			8,808.25	0.00	16,087.00				
1405	42462		6,198.50			05/14/14	2241	1052	PENNONI ASSOCIATES INC. SERVICES THRU 4/13/14 2013 CHAP.
			6,198.50	0.00	22,285.50				
			24,130.50	1,845.00	22,285.50				
07424-3140		LEGAL SERVICES			0.00				
1402	41310		800.00			02/27/14	2234	528	GAWTHROP GREENWOOD & HALSTED LEGAL SERVICES - NOV.2013 GEN.AU
			800.00	0.00	800.00				
1403	41540		700.00			03/12/14	2235	528	GAWTHROP GREENWOOD & HALSTED LEGAL SERVICE - FEB.2014 GEN.AUT
			700.00	0.00	1,500.00				
1404	42074		960.00			04/16/14	2238	528	GAWTHROP GREENWOOD & HALSTED LEGAL SERVICE - MARCH 2014 GEN.A
			960.00	0.00	2,460.00				
1405	42462		1,300.00			05/14/14	2240	528	GAWTHROP GREENWOOD & HALSTED LEGAL SERVICE APRIL 2014 GEN.AUT
			1,300.00	0.00	3,760.00				
			3,760.00	0.00	3,760.00				
07424-7460		LOCHWOOD - CAPITAL -STP			0.00				
1401	40739		1,290.00			01/14/14	10012	2695	BRICKHOUSE ENVIRONMENTAL LOCHWOOD CHASE PROJECT - DEC.201
	40744		-1,290.00			01/14/14	10012	2695	BRICKHOUSE ENVIRONMENTAL VOID CK. - INCORRECT CASH ACCT.U
	40745		1,290.00			01/14/14	2231	2695	BRICKHOUSE ENVIRONMENTAL LOCHWOOD CHASE PROJECT - DEC. 20
	JE 40820			1,290.00		01/22/14	DEPOSIT		DEPOSIT TO REIMBURSE 07 MA FOR 05 EXPENSE
			1,290.00	1,290.00	0.00				
			1,290.00	1,290.00	0.00				
07427-1000		RESERVE PUMP STATION - ENGINEER			0.00				

East Goshen Township General Ledger

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GL Transaction Details

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Acct #	Per	Src Trx #	Debits	Credits	Beg/End Bal	Date	Check/Ref #	ID #	Name/Description
		1405 CD 42462	197.25			05/14/14	2241	1052	PENNONI ASSOCIATES INC. SERV.THRU 4/123/14 RESERVE PS
			197.25	0.00	197.25				
			197.25	0.00	197.25				
07428-1000		RESERVOIR PUMP STATION - ENGINEER			0.00				
		1402 41107	10,687.50			02/11/14	10013	1052	PENNONI ASSOCIATES INC. SERV.THROUGH 1/12/14 RESERVE PS
			10,687.50	0.00	10,687.50				
		1403 41541	4,431.25			03/12/14	10014	1052	PENNONI ASSOCIATES INC. SERV.THRU 2/9/14 RESERV.RD. PS
			4,431.25	0.00	15,118.75				
		1404 42154	5,909.00			04/23/14	10015	1052	PENNONI ASSOCIATES INC. SERVICES THRU 3/16/14 RESERV.RD
			5,909.00	0.00	21,027.75				
		1405 42463	4,724.50			05/14/14	10016	1052	PENNONI ASSOCIATES INC. SERV. THRU 4/13/14 RESERVOIR RD.
		42514	3,150.00			05/16/14	10017	3312	CONESTOGA & ASSOCIATES PROF.SERVICE THRU 3/30/14 RESERV RD. PS - BOG TURTLE HABITAT
			7,874.50	0.00	28,902.25				
			28,902.25	0.00	28,902.25				
Beg Bal		0.00	68,337.50	59,349.01	8988.49000001				

8. GOALS

- a. Review current mission statement and provide the Board of Supervisors with changes, if needed – June 1, 2014 **May 8 – The MA does not have a current mission statement. A first draft is included in the packet. June 9 – Changed “lease” to “leasee”**

- b. Submit an article for each newsletter – Due date for newsletter
Need by 1/31/14 – Dana **Completed**
Need by 4/30/14 – Jack **Completed**
Need by 7/1/14 - Kevin
Need by 10/31/14

- c. Obtain PA DEP approval for the Act 537 Plan revision for the Reservoir Road Pump Station – December 31, 2014 **May 8 - Revisions submitted to EGMA, EGPC, WGSTP, WGPC, CCHD, and CCPC**

- d. Develop a recommendation on covers for the SBRs – August 1, 2014 **May 8 – Draft memo distributed. June 9 – Final memo in packet**

- e. Attend West Goshen Meetings quarterly – more often if needed.

1st Quarter (March) – **Jack- Completed**
2nd Quarter (June) – **Ed- Completed**
3rd Quarter (September)
4th Quarter (December)

- f. Respond to capacity requests in 45 days or less.
211 Ellis Lane – 1 EDU existing house, 195 Wyllpen Place – 1 EDU existing house

- g. Continue to implement I & I Plan **April 14 – Status Report received**

- h. Operate RCSTP in compliance with NPDES Permit
January, February, March, May

8a

MUNICIPAL AUTHORITY MISSION STATEMENT:
DRAFT 5/8/14
DRAFT 6/9/14

The East Goshen Municipal Authority will acquire, hold, construct, improve, maintain, operate, own and lease, either in the capacity of lessor or leasee, sewers, sewer systems or parts thereof, sewage treatment works, including works for treating and disposing of industrial waste, for the Township of East Goshen and other such territory as it may be authorized to serve in a fiscally responsible and environmentally safe manner.

F:\Data\Shared Data\ABC'S\Municipal Authority\By-Laws & Mission\Mission Statement Draft 060914.doc
~~F:\Data\Shared Data\ABC'S\Municipal Authority\By-Laws & Mission\Mission Statement Draft 050814.doc~~

MEMORANDUM

TO: Rick Smith
Mark Miller
East Goshen Municipal Authority

FROM: Michael J. Ellis, P.E.

DATE: June 5, 2014

SUBJECT: **ODOR CONTROL ALTERNATIVES – COVERS AND MISTERS
UPDATE #1
RIDLEY CREEK SEWAGE TREATMENT PLANT**

An evaluation of odor control alternatives and tank covers was briefly discussed at the January 13th Municipal Authority meeting. It is our understanding that there have been no odor complaints and that odor control is not currently needed, but the Authority is interested in proactively evaluating the feasibility and cost of odor control alternatives for planning purposes. Further, there should not be any odor issues in a properly designed and well-operated wastewater treatment plant.

We researched multiple alternatives and prepared a rough cost analysis for a few common odor control solutions.

The two most common methods of odor control are tank covers and chemical misters.

1. Covers – There are several different types of covers:

- Solid, fixed cover
 - Fiberglass reinforced plastic (FRP) covers were included as an alternative bid item in the RCSTP Upgrade and Expansion in 2008. Covers were included for the SBR tanks, post equalization tanks, and sludge digestion tanks. The bids ranged from \$750,000 to \$810,000 for the covers.
 - The expected cost for a new bid project would likely be over \$1,000,000 due to price increases and bidding expenses, since it would be a stand-alone project (no cost savings as would be expected by including it in the overall plant expansion contract).
 - Additional considerations that would need to be evaluated during the design of tank covers that could add cost include:
 - New structural support members on the walkways
 - Addition of carbon columns and fans to the interior to control a resultant musty odor.
- Flexible cover, such as fabric, geo-membrane, or tarps – The cover would need to be able to handle/shed a rain and snow load so some additional supports may be needed. Carbon columns and fans may also be needed. Flexible covers generally are inflatable or arch/frame

supported. Flexible covers are expected to be a similar cost as solid, fixed covers. Specific alternatives include but are not limited to:

- SBR tank covers by Geomembrane Technologies Inc. (GTI). GTI's structurally supported cover system consists of a retractable fabric cover tensioned over a series of low profile aluminum arches. The covers are typically used at wastewater treatment plants to capture odorous off gas for removal and treatment. Water treatment plants use the covers for blocking sunlight to control algae growth and chlorine usage/disinfection byproduct formation. The cover fabric is strong and durable, and can be quickly disconnected and easily retracted to access tank internals for maintenance or inspection. Rainwater can drain off the cover. Estimated costs for acquisition and installation would be about \$340,000 to cover the SBR tanks only. Installation would take approximately 270 man-hours at a cost of \$40,000. GTI's cover system cannot be used on the circular post equalization and sludge digestion tanks due the arch design. A separate cover would therefore need to be used on those tanks if the GTI cover was used on the SBR tanks.
- WesTech, Inc. offers the Duosphere™ Membrane Gasholder Digester Cover. This dual membrane system uses fans to pressurize the air space between the membranes providing consistent positive pressure to the gas contained within the inner membrane. The inner membrane inflates and deflates depending on the amount of gas storage required. The outer membrane is a high strength PVC coated polyester fabric. The cover does not require a separate structural support system. The system can be used on the SBR tanks and the circular tanks. The total estimated cost for acquisition and installation is \$1,300,000 (\$252,000 for each circular tank (2 total) and \$771,800 for the SBR tanks). This option is more costly but it is a more extensive system that provides management of gaseous odors, not just coverage of the tanks.
- Environetics, Inc. offers the custom manufactured Defender Tank Cover. The cover is composed of heavy duty reinforced geomembrane materials combined with clear span structural aluminum frames, and stainless steel hardware that provide a durable, maintenance free service life. Its opaque, light blocking, characteristics virtually eliminate UV light from the tanks for effective algae control. Access hatch and atmospheric vent options are available. It is our understanding that the covers can be provided on all tanks at the plant since they are custom-made. The supplier has not been responsive on pricing requests; however, we expect the cost would be comparable to that of the FRP and Duosphere™ covers.
- Floating cover – Cover can be solid, flexible, or balls. Although floating covers are the least expensive alternative, they are not recommended because they can potentially cause a conflict with the decanter and backwash valves, may require additional baffles be added to prevent conflicts with existing equipment, and restrict visibility of the water surface.
 - The Armor Ball cover could be acquired and installed in a quantity to cover all the tanks for approximately \$30,000. The 4-inch diameter HDPE hollow reinforced balls float on the water surface covering approximately 91% of the surface area.

- Environetics, Inc. also offers a floating style cover comprised of buoyant modules filled with thermal insulation to cover the entire tank surface. The supplier has not been responsive on pricing requests.
2. Misters – There are two general types of misters: odor neutralizing (removes odor) and odor masking (masks odor like a scented air freshener).
- Specific locations, typically around the site perimeter, would need to be determined.
 - The lower initial capital cost compared to covers is offset by the continuous chemical supply costs required for normal operation.
 - Misters may not be as effective at odor control as covers.

END OF MEMO

SEWER CONNECTION AGREEMENT

THIS AGREEMENT is made the _____ day of _____, 2014 by and between EAST GOSHEN MUNICIPAL AUTHORITY ("Authority") and Coleman White Land Co Inc. ("Owner").

Background

- A. The Owner holds legal title to the lot located at 195 Wylpen Place, West Chester, PA, Willistown Township, being designated UPI # 54-8-63 ("Property").
- B. The Owner wishes to connect a sewer lateral from the structure on the Property to a lateral stub to be connected to the East Goshen Township public sewer system ("System") to provide public sewer service to the Property.
- C. The installation of the lateral stub and its connection to a sewer main or manhole of the System shall be made by Owner.
- D. The parties have entered into this Agreement to set forth their responsibilities associated with the connection of the Property to the System.

NOW, THEREFORE, intending to be legally bound, the Authority and the Owner agree as follows:

- 1. The Owner's request for public sewer service shall be submitted to the Authority in writing on the East Goshen Township Public Sewer Connection Permit application form.
- 2. The Authority Engineer and/or Director of Public Works shall approve the location of the proposed connection and the method of connection before any installation activity is commenced.
- 3. The tapping and inspection fees associated with the connection to the System shall be paid by the Owner.
- 4. The Director of Public Works shall provide the Owner with a written estimate of the costs of the lateral stub installation and connection, which shall become Exhibit "A" to this Agreement.
- 5. If rock, poor soil conditions, water in excavation or other unforeseen site conditions are encountered by Authority during the installation of the lateral stub, the cost estimate provided shall be amended to reflect the additional charges for such conditions.
- 6. The Township Department of Public Works shall install the lateral stub and provide the Owner requesting public sewer service with an itemized invoice for labor, equipment

and materials. All land disturbance caused to the Property by reason of the lateral stub installation shall be restored by the Authority upon completion of the work.

7. The Authority shall have the right to lien the Property for any unpaid costs to the Authority that have been incurred in connection with the installation of the lateral stub.

8. Upon payment of the invoice for the installation of the lateral stub by the Authority, the connection of the lateral serving the Property to the lateral stub may be completed by the Owner.

IN WITNESS WHEREOF, Authority and Owner have executed this Sewer Connection Agreement the day and year first above written.

EAST GOSHEN MUNICIPAL AUTHORITY

By: _____

OWNER

Shirley Per... in with Land Co...

EXHIBIT A

**East Goshen Township
Cost Estimate
May 13, 2014**

195 Wylpen Place

Sanitary Sewer Pipe Work

Install 90' of 8" SDR pipe 8 ft. deep
Core manhole install 8 inch A-LOCK
Stone backfill compacted in 1 ft. lifts
3.5 tons 25 millimeter blacktop
2.0 tons 19 millimeter blacktop
Seal joints AC 20

Landscaping

Spade three pine trees and several small bushes during construction and reinstall. (Plus 1 year guarantee)
Remove several rocks
Replace excavated area with top soil
3 yards triple shredded mulch
Seed and Straw grass areas

Total Cost \$12,203.00

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EAST GOSHEN MUNICIPAL AUTHORITY
EAST GOSHEN TOWNSHIP
1560 PAOLI PIKE, WEST CHESTER, PA 19380-6199

June 2, 2014

Dear Resident:

On Tuesday, June 10, 2014 the East Goshen Municipal Authority will be rehabilitating the sanitary sewer manhole at the entrance to Fairway Village. Work will commence at 10:30 am and the road will not be closed to traffic.

The Authority has contracted with Abel Recon to rehabilitate the manhole. The work will consist of spraying the inside of the manhole with a polyurethane coating which is a relative new technology.

We negotiated a reduced price with Abel Recon to do the work as a demonstration project. Accordingly, we have invited representatives from several of our neighboring municipalities to attend, so do not be surprised if you see several non-East Goshen Township trucks.

Please call me at 610-692-7171 or e-mail me at rsmith@eastgoshen.org if you have any questions.

Sincerely,



Louis F. Smith, Jr
Township Manager

cc: East Goshen Municipal Authority
East Goshen Board of Supervisors



You're Invited

East Goshen Twp and Pennoni Assoc. welcome you to a special field demonstration of a complete structural manhole rehabilitation

Save the Date:

Tuesday, June 10 at 11:00 AM

Rain date: Tues., June 17, 2014

**Location: 902 Fairway Dr.
Malvern, PA**

Lunch will be provided.

ABEL RECON, a certified Sprayroq applicator will be performing a complete manhole rehabilitation demo and review of the application and benefits of Spraywall®. SprayWall® by Sprayroq® is a structural spray applied polyurethane solution for infrastructure rehabilitation, corrosion management, and infiltration.

Demo Highlights:

- Overview discussion of product attributes, application process and structural rehabilitation
- Real-time application of the product in the host structure
- Quick return to service of the structure
- Q & A period and product samples

Just look for the Big Red ABEL RECON trucks



**Please R.S.V.P.
By Friday
June, 6th,
2014**

(717) 285-3103 Tel
(717) 725-0795 Cell
ssnyder@abelrecon.com

Include your name, e-mail and phone number and how many will be attending so that we have an accurate count for the provided lunch.

If you have any questions prior to the demonstration, please contact Scot Snyder at
(717) 285-3103 Tel
(717) 725-0795 Cell
ssnyder@abelrecon.com

We look forward to seeing you there.





About Your Host:

ABEL RECON specializes in the infrastructure rehabilitation field. They offer a wide variety of services (infrastructure cleaning and evaluation, structure rehabilitation, cured-in-place pipelining, and pipeline grouting and chemical root control) to assist authorities and engineering consultants with the growing problem of system maintenance and rehabilitation.

ABEL RECON serves New Jersey, Pennsylvania, Maryland, Delaware, Washington DC and Ohio in assisting authorities and municipalities in system reconditioning, rehabilitation, and protection.

For more information, visit: www.abelrecon.com



About The Technology:

Sprayroq polyurethanes are fast setting, tough, corrosion and abrasion resistant linings that can be spray-applied at any desired thickness in a single mobilization.

The products are ideally designed for applications on surfaces exposed to acids, corrosives and other caustic elements. Environmental and climatic factors such as freeze/thaw cycling, high humidity or shrinking and swelling soil conditions have minimal effect.

With a range of formulas that span applications requiring elastomeric, semi-rigid or rigid (structural) properties, Sprayroq is the source for structural rehabilitation and corrosion protection solutions that provide excellent Return On Investment (ROI) and extension of asset performance life.

For more information, visit: www.sprayroq.com



3925 Columbia Avenue
Mountville, PA 17554-0476
717-285-3103

info@abelrecon.com
www.abelrecon.com